NOVEMBER/DECEMBER 2025

FCA52/FCS52/FSC52/CCA52/CCS52/ CSC52 — OPERATING SYSTEM

Time : Three hours Maximum : 75 marks

Shanmuga Industries Arts & Science College
T.V.Malai

SECTION A — (10 × 2 = 20 marks)

Answer ALL the questions.

1. What is an Operating system?
2. Define the term – Distributed systems.
3. What is meant by Throughput in CPU Scheduling criteria?
4. Define the term – Deadlock.
5. What is Demand Paging memory management technique?
6. Define the term – Compaction.
7. What are the File allocation methods?
8. Define the term – RAID.
9. Define the term – Shell in Linux.
10. What is meant by Interprocess communication?

SECTION B — (5 × 5 = 25 marks)

Answer ALL the questions.

11. (a) Discuss on Computer System operation and I/O Structure.

Or

(b) Explain about the System components.

12. (a) Describe the working of Semaphores.

Or

(b) Discuss on the method of Deadlock detection and recovery from Deadlock.

13. (a) Explain the Segmentation memory management technique.

Or

(b) Describe about any two Page replacement algorithms in Demand paging.

14. (a) Discuss on File-System structure and Free-space management.

Or

(b) Explain any two Disk Scheduling algorithms.

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15. (a) Describe about the Process management procedure in UNIX.

Or

(b) Discuss on Process Scheduling in Linux.

SECTION C — (3 × 10 = 30 marks)

Answer any THREE questions.

16. Describe the concept of Process and Process scheduling.

17. Discuss on CPU Scheduling algorithms.

18. Explain the Paging memory management technique in detail.

19. Describe the concept of Files and Access methods.

20. Discuss on Memory management and File system principles in Linux system.

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